

What is claimed is:

- 1) A recombinant DNA construct comprising a polynucleotide selected from the group consisting of a polynucleotide comprising a nucleic acid sequence selected from the group consisting of SEQ ID NO: 1-3549.
- 5 2) A recombinant DNA construct comprising a polynucleotide selected from the group consisting of a polynucleotide encoding a polypeptide having an amino acid sequence selected from the group consisting of SEQ ID NO: 3550-7098.
- 10 3) A method of producing a plant having an improved property, wherein said method comprises transforming a plant with a recombinant construct comprising a promoter region functional in a plant cell operably joined to a polynucleotide comprising coding sequence for a polypeptide associated with said property, and growing said transformed plant, wherein said polypeptide is selected from the group consisting of:
 - a) a polypeptide useful for improving plant cold tolerance, wherein said polypeptide comprises a sequence identified as such in Table 1;
 - 15 b) a polypeptide useful for manipulating growth rate in plant cells by modification of the cell cycle pathway, wherein said polypeptide comprises a sequence identified as such in Table 1;
 - c) a polypeptide useful for improving plant drought tolerance, wherein said polypeptide comprises a sequence identified as such in Table 1;
 - 20 d) a polypeptide useful for providing increased resistance to plant disease, wherein said polypeptide comprises a sequence identified as such in Table 1;
 - e) a polypeptide useful for galactomannan production, wherein said polynucleotide comprises a sequence identified as such in Table 1;

f) a polypeptide useful for production of plant growth regulators, wherein said polypeptide comprises a sequence identified as such in Table 1;

g) a polypeptide useful for improving plant heat tolerance, wherein said polypeptide comprises a sequence identified as such in Table 1;

5 h) a polypeptide useful for improving plant tolerance to herbicides, wherein said polypeptide comprises a sequence identified as such in Table 1;

i) a polypeptide useful for increasing the rate of homologous recombination in plants, wherein said polypeptide comprises a sequence identified as such in Table 1;

10 j) a polypeptide useful for lignin production, wherein said polypeptide comprises a sequence identified as such in Table 1;

k) a polypeptide useful for improving plant tolerance to extreme osmotic conditions, wherein said polypeptide comprises a sequence identified as such in Table 1;

15 l) a polypeptide useful for improving plant tolerance to pathogens or pests, wherein said polypeptide comprises a sequence identified as such in Table 1;

m) a polypeptide useful for yield improvement by modification of photosynthesis, wherein said polynucleotide comprises a sequence identified as such in Table 1;

20 n) a polypeptide useful for modifying seed oil yield and/or content, wherein said polypeptide comprises a sequence identified as such in Table 1;

o) a polypeptide useful for modifying seed protein yield and/or content, wherein said polypeptide comprises a sequence identified as such in Table 1;

p) a polypeptide encoding a plant transcription factor, wherein said polypeptide comprises a sequence identified as such in Table 1;

q) a polypeptide useful for yield improvement by modification of carbohydrate use and/or uptake, wherein said polypeptide comprises a sequence identified as such in Table 1;

r) a polypeptide useful for yield improvement by modification of nitrogen use and/or uptake, wherein said polypeptide comprises a sequence identified as such in Table 1;

5 s) a polypeptide useful for yield improvement by modification of phosphorus use and/or uptake, wherein said polypeptide comprises a sequence identified as such in Table 1; and

t) a polypeptide useful for yield improvement by providing improved plant growth and development under at least one stress condition, wherein said polypeptide comprises a sequence identified as such in Table 1.